

# Crystal Falls Forest Management Unit Compartment Review Presentation Compartment 53 Entry Year: 2013

Compartment Acreage: 2630 County: Dickinson

**Revision Date:** June 23, 2011

**Stand Examiner:** Cynthia Cooper

**Legal Description:** T42N, R29W, Sections 5-8, 17, 18

RMU (if applicable): None

Management Goals: Maintain and improve aspen and hardwoods.

Soil and Topography: Rolling hills and uplands with sandy loams and low lands with Cathro and

Carbondale Mucks.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Entirely State

ownership with the exception of one private 40.

Unique, Natural Features: Warren Pond.

Archeological, Historical, and Cultural Features: None

**Special Management Designations or Considerations:** None

Watershed and Fisheries Considerations: None

**Wildlife Habitat Considerations:** All species of wildlife need to be considered and a full range of habitat conditions should be provided. Conditions from early-successional to old growth must be provided to meet these needs. Riparian and transition zones were set aside in prior years of entry to provide some of these habitat requirements. Upland and lowland conifer components should be maintained and enhanced when possible. Opening maintenance will be completed as logistics allow.

**Mineral Resource and Development Concerns and/or Restrictions:** 

Compartment 53: Sections 5 – 8, 17 and 18, T42N-R29W, Dickinson County

Surface sediments consist of medium-textured and coarse-textured glacial till. The glacial drift thickness varies between 10 and 100 feet. The Cambrian Munising Formation, and Precambrian Michigamme Formation, Randville Dolomite and Archean granite/gneiss and volcanic and sedimentary rocks subcrop below the glacial drift. The Randville is used as a building stone. The other formations do not have a current economic use, although they might have building stone potential. There is a rock quarry/exploration area located in Section 2, one mile to the east. The Groveland Iron mine is located approximately three miles to the south. Part of this compartment was previously leased for metallic exploration and potential may still exist. A gravel pit is located two and one-half miles to the north. There should be some gravel potential. There is no economic oil and gas production in the UP.

**Vehicle Access:** Fair. Wells Grade Road runs through center of compartment. Many woods roads of fair to poor condition are also present.

**Survey Needs:** Will need corners in sections 5 and 7.

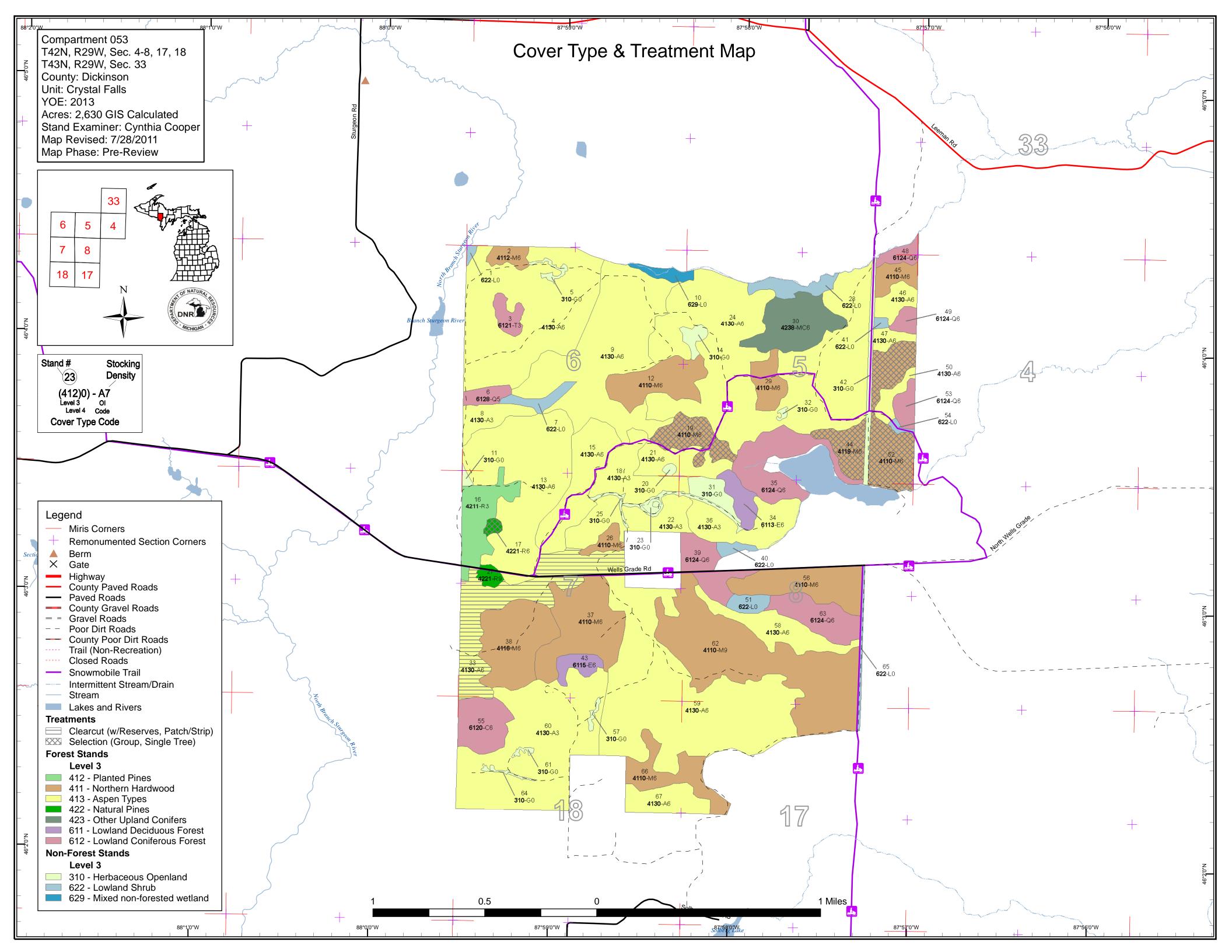
**Recreational Facilities and Opportunities:** A snowmobile trail runs through the center of the north half of the compartment and along the eastern edge. Many ages of aspen are present to provide habitat for game birds and swamp conifers for deer.

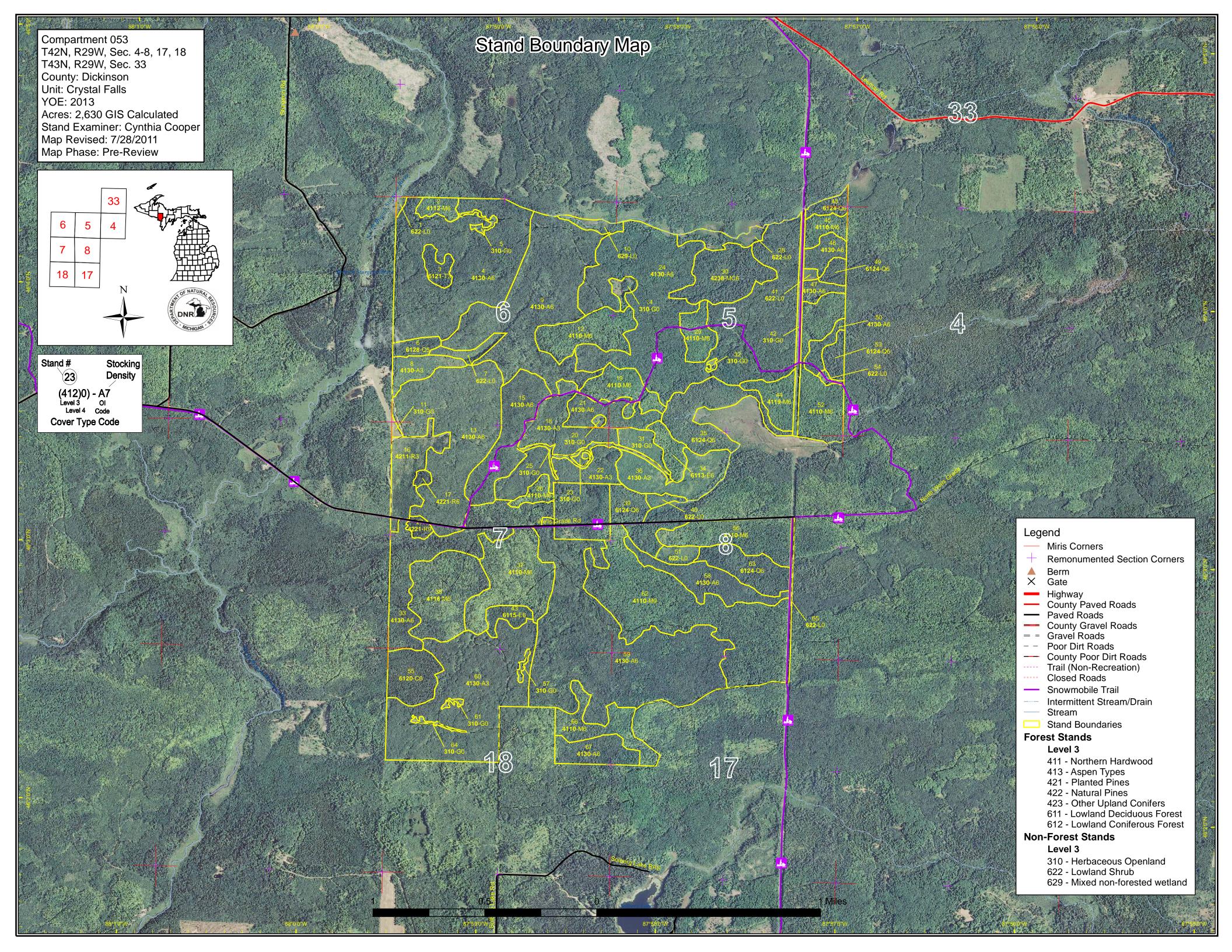
**Fire Protection:** 

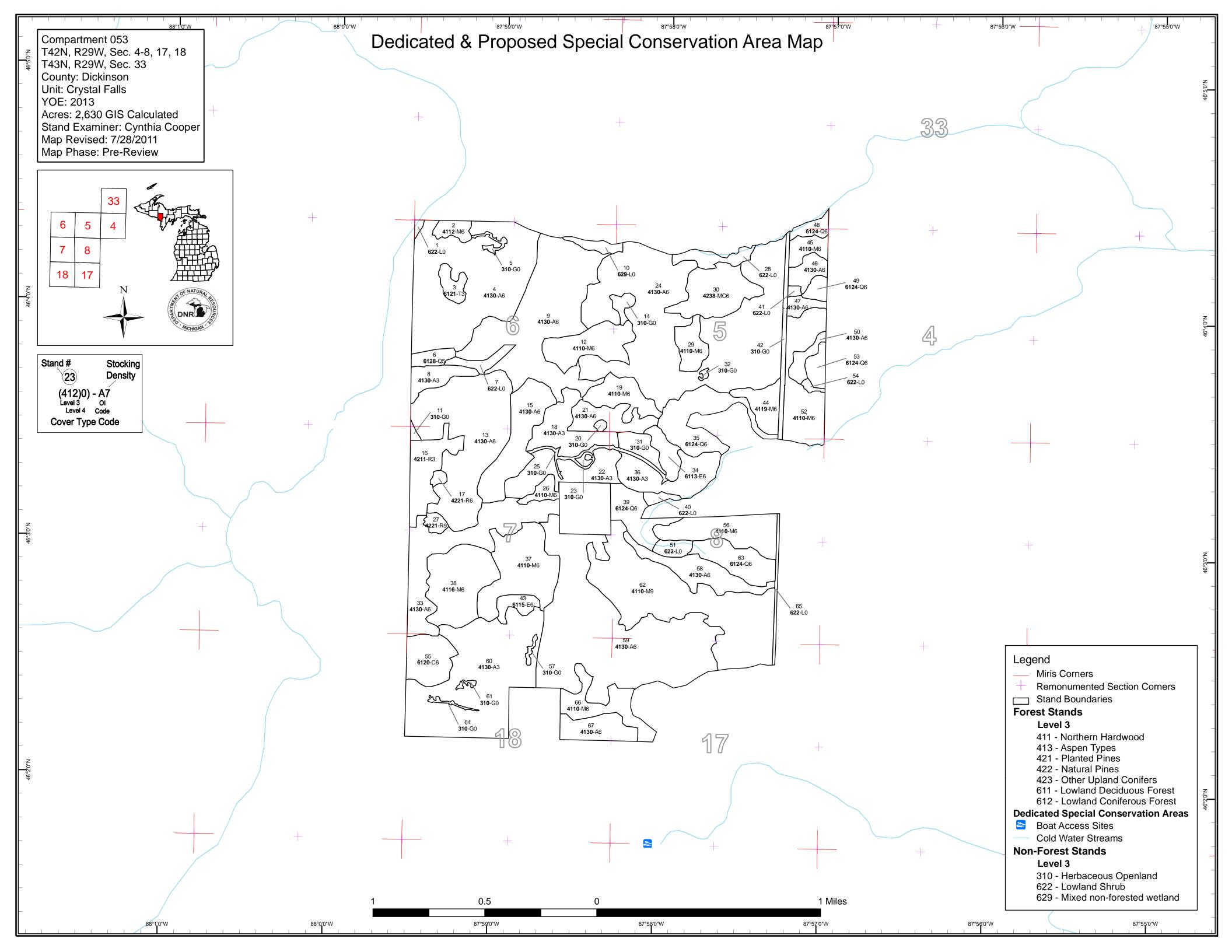
**Additional Compartment Information:** 

- ➤ The following reports from the Inventory are attached:
  - **♦** Total Acres by Cover Type and Age Class
  - **♦** Proposed Treatment Summary
  - **♦** Proposed Treatments No Limiting Factors
  - **♦** Proposed Treatments With Limiting Factors
  - **♦** Stand Details (Forested and Nonforested)
  - **♦** Dedicated and Proposed Special Conservation Areas
- > The following information is displayed, where pertinent, on the attached compartment maps:
  - ♦ Base feature information, stand boundaries, cover types, and numbers
  - **♦** Proposed treatments
  - ♦ Details on the road access system

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Compartment 053 Year of Entry 2013

Crystal Falls Mgt. Unit **Cynthia Cooper: Examiner** 



Age	Class	
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							Age	Class									
	Hor	Do Joseph	8.7	02.00	,	, S. J.	D. P.	\$5.05 /	8.0	10.1°	\$ 8. S. S.	8 /	00,00	8120	SO SU	1 8 / A	, \$ <sup>1</sup>
Aspen	0	63	86	315	1064	87	0	0	0	0	0	0	0	0	0	1615	
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	0	32	0	32	
Herbaceous Openland	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57	
Lowland Conifers	0	0	0	0	0	0	0	0	0	141	9	0	0	0	0	151	
Lowland Deciduous	0	0	0	0	0	0	0	11	0	15	0	0	0	0	0	26	
Lowland Shrub	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56	
Northern Hardwood	0	0	0	0	0	0	0	0	0	87	501	0	0	0	0	588	
Red Pine	0	0	37	0	0	0	0	0	8	0	0	0	0	0	0	46	
Tamarack	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	10	
Upland Conifers	0	0	0	0	0	0	0	0	0	49	0	0	0	0	0	49	
Total	113	63	123	315	1074	87	0	11	8	291	510	0	0	32	0	2630	1



# **Table 2 – Proposed Treatment Summaries**

Crystal Falls Mgt. Unit

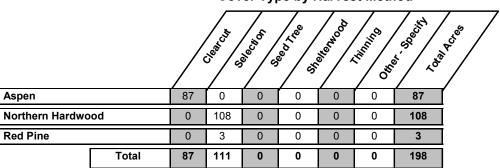
Compartment 053 Year of Entry 2013 **Total Compartment Acres: 2630** 

**Acres by Treatment Type** 

Commercial Harvest - 198 Site Prep - 0 Tree Planting - 0 Prescribed Burn - 0 Other - 0

Habitat Cut - 0 Tree Seeding - 0 Pesticide - 0 Opening Maintenance - 0

## **Cover Type by Harvest Method**



Crystal Falls Mgt. Unit

# Table 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 053
Year of Entry 2013

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1	MICH	GAN .
<b>.</b>	2501	ol.

a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
17	12053017-Cut	2.9	42210 - Natural Red Pine	High Density Pole	70	Harvest	Single Tree Selection	42210 - Natural Red Pine	Cmpt. Review Proposal

<u>Prescription</u> Thin basal area down to 120 removing poorer trees first.

Specs:

s

Other Comments:

Comment

Next Steps:

9 12053019-Cut 28.5 4110 - Sugar Maple High Density Pole 80 Harvest Single Tree Selection 4110 - Sugar Maple Cmpt. Review Association Proposal

Prescription Thin to a residual basal area of 80 taking aspen and poor quality trees first. Hold conifer as per wildlife division.

Specs:

Other Aspen can be spec'd for cut rather than marked.

Comments:

Next Regeneration check.

Steps:

33 12053033-Cut 87.1 4130 - Aspen High Density Pole 47 Harvest Clearcut with 4134 - Aspen, Cmpt. Review Reserves Spruce/Fir Proposal

<u>Prescription</u> Clear cut retaining spruce/fir under 6" at the stump and all pine. Also retain cedar, hemlock and oak if present. Do not enter small E type

<u>Specs:</u> inclusion along road.

Other Aspen is currently 2 aged.

Comments:

Next Regeneration check

Steps:

44 12053044-Cut 21.3 4119 - Mixed High Density Pole 95 Harvest Single Tree Selection A119 - Mixed Cmpt. Review Northern Hardwoods Proposal

Prescription. Thin to a basal area of 80 removing aspen and poorer trees first. Hold conifer as per wildlife division.

Specs:

Other Aspen can be spec'd for cut rather than marked.

Comments:

Next Regeneration check.

Steps:

52 12053052-Cut 57.9 4110 - Sugar Maple High Density Pole 95 Harvest Single Tree Selection 4110 - Sugar Maple Cmpt. Review Association Proposal

Prescription Thin to a residual basal area of 80 taking aspen and poor quality trees first. Hold conifer as per wildlife division.

Specs:

Other Aspen can be spec'd for cut rather than marked.

Comments:

Next Regeneration check.

Steps:

**Total Treatment** 

Acreage Proposed: 197.8

Crystal Falls Mgt. Unit Table 4 -- Treatments Prescribed with Compartment: 053 a Limiting Factor s Year of Entry 2013 t **Treatment** n **Treatment Acres** Stage1 Size Stand **Treatment Cover Type Approval** Name CoverType Density Method Objective Status Age Type d #Error **Prescription** Specs: <u>Other</u> Comment: <u>Next</u> Steps: Limiting Factor and No

Total Treatment Acreage Proposed:

Treatment Reason

0

#### Out of YOE -- Treatments **Prescribed with No Limiting Factor**

Year of Entry: 2013

Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
12060_OutOfY OE-Cut	6.0				Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
Prescription Clea	arcut 2" db	h and above except	cedar, hemlock a	and pine if p	oresent.			

Specs:

<u>Other</u> Comments:

<u>Next</u> Steps:

**Total Treatment** 

6.0 Acreage Proposed:

S t	Crystal Fall	ls Mgt. Unit		5 – Fo	orested Stan	Compartment: 053 Year of Entry: 2013
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	4112 - Maple, Beech, Cherry Association	High Density Pole	9.7	90	81-110	Stand thinnned and aspen removed 30 years ago. BA now averaging 90.
3	6121 - Tamarack	High Density Sapling	10.4	30		
4	4130 - Aspen	High Density Pole	175.9	38		
6	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	9.3	90		
8	4130 - Aspen	High Density Sapling	18.3	6		
9	4130 - Aspen	High Density Pole	162.1	30		
12	4110 - Sugar Maple Association	High Density Pole	41.8	90	81-110	scattered aspen.
13	4130 - Aspen	High Density Pole	144.1	28		
15	4130 - Aspen	High Density Pole	56.2	33		
16	42110 - Planted Red Pine	High Density Sapling	37.3	16		
17	42210 - Natural Red Pine	High Density Pole	2.9	70	171-200	brush in understory
18	4130 - Aspen	High Density Sapling	40.8	18		Hunter walking trail in stand.
19	4110 - Sugar Maple Association	High Density Pole	28.5	80	81-110	
21	4130 - Aspen	High Density Pole	27.1	30		
22	4130 - Aspen	High Density Sapling	45.0	18		Hunter walking trail/road in stand.
24	4130 - Aspen	High Density Pole	299.4	38		
26	4110 - Sugar Maple Association	High Density Pole	8.5	80	81-110	•
27	42210 - Natural Red Pine	High Density Log	5.5	75	111-140	

Crystal Falls Mgt. Unit			5 – Fo	orested Sta	Compartment: 053 Year of Entry: 2013
Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
4110 - Sugar Maple Association	High Density Pole	18.9	90		
42380 - Non Pine Upland Conifer, Mixed Deciduous	High Density Pole	48.6	81		
4130 - Aspen	High Density Pole	87.1	47		
6113 - Lowland Maple	High Density Pole	14.5	86		
6124 - Lowland Spruce- Fir	High Density Pole	51.6	86		
4130 - Aspen	High Density Sapling	44.9	7		
4110 - Sugar Maple Association	High Density Pole	70.6	95	81-110	Much B.F. in understory less than 3 feet. Also ironwood around 4 feet tall.
4116 - Mixed N. Hardwood - Aspen	High Density Pole	65.9	95	81-110	Much aspen in stand around 30 years old. Stand was high graded in past and logger left uncut marked trees. Larger hardwood poor but small poles good. 5-10 foot maple saps present. Hold and recheck in 10 years.
6124 - Lowland Spruce- Fir	High Density Pole	29.9	86		
6115 - Lowland Ash	High Density Pole	11.1	60		
4119 - Mixed Northern Hardwoods	High Density Pole	21.3	95	81-110	BF seedlings in understory. Hilly but operable.
4110 - Sugar Maple Association	High Density Pole	13.2	95	81-110	Area high to BF on east side
4130 - Aspen	High Density Pole	13.9	38		
4130 - Aspen	High Density Pole	8.0	38		
6124 - Lowland Spruce- Fir	High Density Pole	8.8	81		
6124 - Lowland Spruce- Fir	High Density Pole	7.1	81		
4130 - Aspen	High Density Pole	10.0	38		
	Level 4 Cover Type  4110 - Sugar Maple Association  42380 - Non Pine Upland Conifer, Mixed Deciduous  4130 - Aspen  6113 - Lowland Maple 6124 - Lowland Spruce- Fir  4130 - Aspen  4110 - Sugar Maple Association  4116 - Mixed N. Hardwood - Aspen  6124 - Lowland Spruce- Fir  6115 - Lowland Ash  4119 - Mixed Northern Hardwoods  4110 - Sugar Maple Association  4130 - Aspen  6124 - Lowland Spruce- Fir  6124 - Lowland Spruce- Fir  6124 - Lowland Spruce- Fir	Level 4 Cover Type  4110 - Sugar Maple Association  42380 - Non Pine Upland Conifer, Mixed Deciduous  4130 - Aspen  6113 - Lowland Maple 6124 - Lowland Spruce- Fir  4130 - Aspen  4116 - Mixed N. Hardwood - Aspen  6124 - Lowland Spruce- Fir  6115 - Lowland Ash High Density Pole  4110 - Sugar Maple Association  4110 - Sugar Maple High Density Pole  6124 - Lowland Spruce- Fir  High Density Pole  4110 - High Density Pole  4110 - High Density Pole  6124 - Lowland Spruce- Fir  High Density Pole  4110 - Sugar Maple High Density Pole  4110 - Sugar Maple Association  High Density Pole  4110 - Sugar Maple High Density Pole  4110 - Sugar Maple Association  High Density Pole  4110 - Sugar Maple Association  High Density Pole  4130 - Aspen  High Density Pole  6124 - Lowland Spruce- Fir  High Density Pole  High Density Pole	Level 4 Cover TypeSize DensityAcres4110 - Sugar Maple AssociationHigh Density Pole18.942380 - Non Pine Upland Conifer, Mixed DeciduousHigh Density Pole48.64130 - AspenHigh Density Pole87.16113 - Lowland MapleHigh Density Pole51.66124 - Lowland Spruce- FirHigh Density Sapling51.64130 - AspenHigh Density Sapling70.64116 - Mixed N. Hardwood - AspenHigh Density Pole65.96124 - Lowland Spruce- FirHigh Density Pole29.96115 - Lowland Ash HardwoodsHigh Density Pole21.34110 - Sugar Maple AssociationHigh Density Pole13.24110 - Sugar Maple AssociationHigh Density Pole13.24130 - AspenHigh Density Pole13.94130 - AspenHigh Density Pole8.06124 - Lowland Spruce- FirHigh Density Pole8.86124 - Lowland Spruce- FirHigh Density Pole7.14130 - AspenHigh Density Pole7.14130 - AspenHigh Density Pole7.1	Level 4 Cover Type         Size Density         Acres         Stand Age           4110 - Sugar Maple Association         High Density Pole         18.9         90           42380 - Non Pine Upland Conifer, Mixed Deciduous         High Density Pole         48.6         81           4130 - Aspen         High Density Pole         87.1         47           6113 - Lowland Maple Fir         High Density Pole         14.5         86           6124 - Lowland Spruce-Fir         High Density Pole         51.6         86           4130 - Aspen         High Density Pole         70.6         95           4110 - Sugar Maple Association         High Density Pole         65.9         95           4116 - Mixed N. Hardwood - Aspen         High Density Pole         65.9         95           6124 - Lowland Spruce-Fir         High Density Pole         11.1         60           4119 - Mixed Northern Hardwoods         High Density Pole         13.2         95           4110 - Sugar Maple Association         High Density Pole         13.9         38           4130 - Aspen         High Density Pole         8.0         38           4130 - Aspen         High Density Pole         8.8         81           6124 - Lowland Spruce-Fir         High Density Pole         8.8 <td>Level 4 Cover Type         Size Density         Acres         Stand Age         BA Range           4110 - Sugar Maple Association         High Density Pole         18.9         90         90           42380 - Non Pine Upland Conifer, Mixed Deciduous         High Density Pole         48.6         81         81           4130 - Aspen         High Density Pole         87.1         47         47           6113 - Lowland Maple Fir         High Density Pole         51.6         86         46           4130 - Aspen         High Density Pole         70.6         95         81-110           4110 - Sugar Maple Association         High Density Pole         65.9         95         81-110           4116 - Mixed N. Hardwood - Aspen         High Density Pole         29.9         86         86           6124 - Lowland Spruce-Fir         High Density Pole         11.1         60         81-110           4119 - Mixed Northern Hardwoods         High Density Pole         13.2         95         81-110           4110 - Sugar Maple Association         High Density Pole         13.9         38         81-110           4130 - Aspen         High Density Pole         8.0         38         81-110           4130 - Aspen         High Density Pole         8.8</td>	Level 4 Cover Type         Size Density         Acres         Stand Age         BA Range           4110 - Sugar Maple Association         High Density Pole         18.9         90         90           42380 - Non Pine Upland Conifer, Mixed Deciduous         High Density Pole         48.6         81         81           4130 - Aspen         High Density Pole         87.1         47         47           6113 - Lowland Maple Fir         High Density Pole         51.6         86         46           4130 - Aspen         High Density Pole         70.6         95         81-110           4110 - Sugar Maple Association         High Density Pole         65.9         95         81-110           4116 - Mixed N. Hardwood - Aspen         High Density Pole         29.9         86         86           6124 - Lowland Spruce-Fir         High Density Pole         11.1         60         81-110           4119 - Mixed Northern Hardwoods         High Density Pole         13.2         95         81-110           4110 - Sugar Maple Association         High Density Pole         13.9         38         81-110           4130 - Aspen         High Density Pole         8.0         38         81-110           4130 - Aspen         High Density Pole         8.8

s t	Crystal Falls Mgt. Unit			5 – Fo	orested Sta	nds Compartment: 053 Year of Entry: 2013
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
52	4110 - Sugar Maple Association	High Density Pole	57.9	95	111-140	Hilly but operable. Poles fair to good,logs mostly poor. Has old marks on trees in north of stand but has not been cut.
53	6124 - Lowland Spruce- Fir	High Density Pole	10.3	81		Part of a larger stand in compartment to the east.
55	6120 - Lowland Cedar	High Density Pole	32.5	120		
56	4110 - Sugar Maple Association	High Density Pole	49.6	85	81-110	ocassional paper and yellow birch
58	4130 - Aspen	High Density Pole	37.8	32		
59	4130 - Aspen	High Density Pole	247.0	37		
60	4130 - Aspen	High Density Sapling	171.3	20		
62	4110 - Sugar Maple Association	High Density Log	166.5	95	81-110	
63	6124 - Lowland Spruce- Fir	High Density Pole	33.7	86		

4110 - Sugar Maple Association

4130 - Aspen

66

67

High Density Pole

High Density Pole 35.2

26.4

90

37

111-140

#### 6 - Nonforested Stands

Compartment: 053 Year of Entry: 2013



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	6229 - Mixed lowland shrub	1.7	No	Unspecified	
5	3102 - Grass	3.1	No	Unspecified	
7	6229 - Mixed lowland shrub	9.3	No	Unspecified	
10	629 - Mixed non-forested wetland	7.6	No	Unspecified	
11	3102 - Grass	1.6	No	Unspecified	South end of an air landing strip that begins on privately owned land.
14	3102 - Grass	6.2	No	Unspecified	
20	3102 - Grass	1.6	No	Unspecified	
23	3102 - Grass	2.0	No	Unspecified	
25	3102 - Grass	9.8	No	Unspecified	
28	6229 - Mixed lowland shrub	14.4	No	Unspecified	
31	3102 - Grass	13.0	No	Unspecified	
32	3102 - Grass	1.1	No	Unspecified	
40	6229 - Mixed lowland shrub	4.7	No	Unspecified	
41	6229 - Mixed lowland shrub	2.1	No	Unspecified	
42	3102 - Grass	13.4	No	Unspecified	
51	6229 - Mixed lowland shrub	8.7	No	Unspecified	
54	6229 - Mixed lowland shrub	2.3	No	Unspecified	
57	3102 - Grass	1.8	No	Unspecified	woods road

#### 6 - Nonforested Stands

Compartment: 053 Year of Entry: 2013



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
61	3102 - Grass	1.3	No	Unspecified	woods road
64	3102 - Grass	1.9	No	Unspecified	
65	6229 - Mixed lowland shrub	5.7	No	Unspecified	

Crystal Falls Mgt. Unit

Compartment: 053 Year of Entry: 2013



### 7 - PROPOSED SPECIAL CONSERVATION AREA\* (SCA) DETAILS

\* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

Stand	SCA Type	SCA Name	Acres	Comments

Crystal Falls Mgt. Unit

Compartment: 053 Year of Entry 2013



#### **8 – DEDICATED CONSERVATION AREA DETAILS**

\* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

Conservation Area	Туре	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Stream	stocked trout populations and those of other coldwayear to year. Coldwater streams in Michigan typical	ly provide these conditions due to substantial Such streams are established by Director's action and